

Use Case 1: Start Game

Precondition: None

Postcondition: The game menu is shown

Main scenario:

1. Starts when the user wants to begin a session of the hangman game.
2. The system presents the main menu with a title, the option to play and quit the game.
3. The Gamer makes the choice to start the game.
4. The system starts the game (see Use Case 2)

Repeat from step 2

Alternative scenarios:

3.1 The Gamer makes the choice to quit the game.

1. The system quits the game (see Use Case 3)

4.1 Invalid menu choice

1. The system presents an error message
2. Go to step 2

Use Case 2: Play Game

Precondition: The game menu is shown

Postcondition: The game is running

Main scenario:

1. Starts when the user chooses to start the hangman game.
2. The system picks a random word from the predefined vocabulary library and shows the number of letters with underlines.
3. The Gamer guesses a correct letter.
4. The system adds the correct letter to the right position.
5. Repeat from step 3 until the word is guessed or there are no more attempts.
6. The system shows the message to tell whether the Gamer won or lost the game.
7. The Gamer choose to start a new game or quit the game.

Alternative scenarios:

3.1 Gamer's guess is not a letter

1. The system tells Gamer to guess a letter.
2. Go to step 3

7.1 The system shows menu

Use Case 3: Quit Game

Precondition: The game menu is shown

Postcondition: The game is terminated

Main scenario:

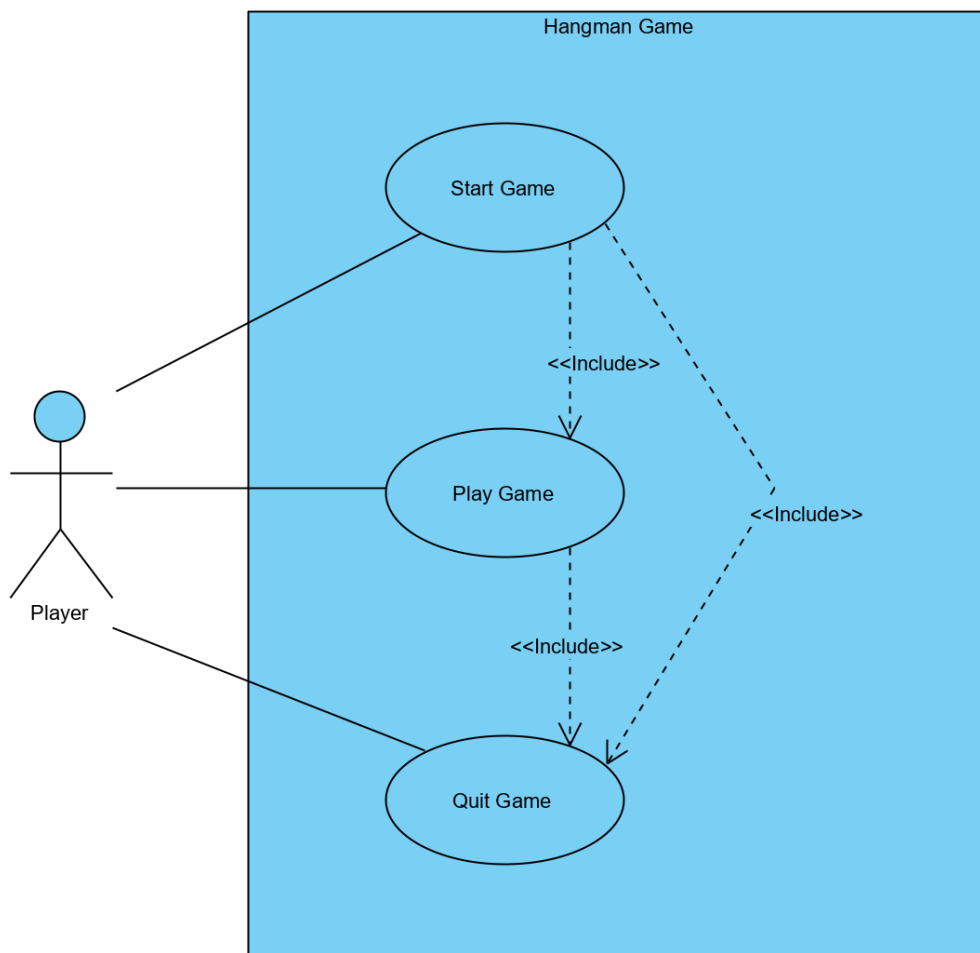
1. Starts when the user wants to quit the game.
2. The system prompts for confirmation.

3. The user confirms.
4. The system terminates.

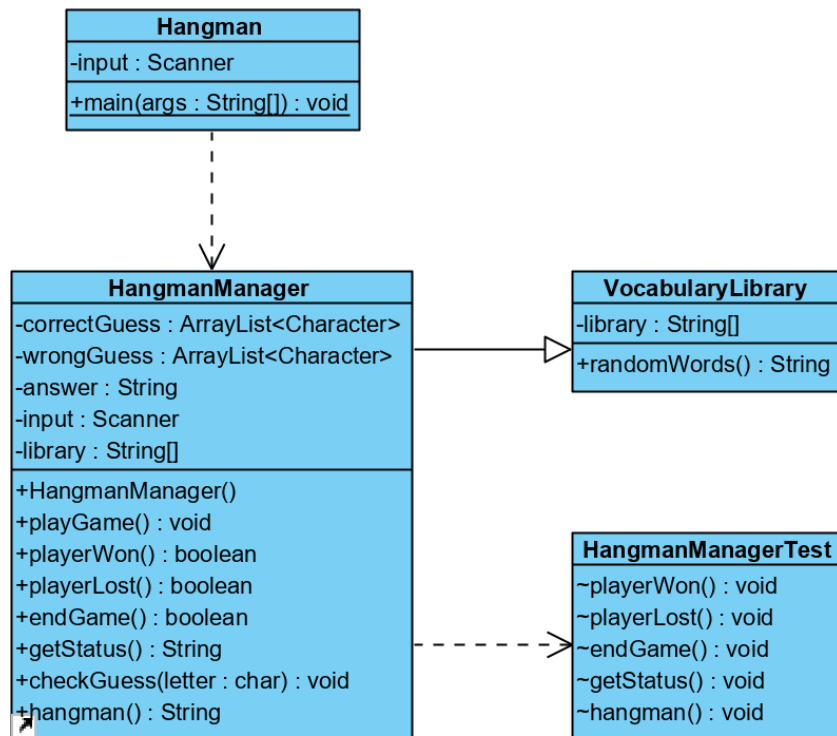
Alternative scenarios:

- 3.1. The user does not confirm
 1. The system returns to its previous state

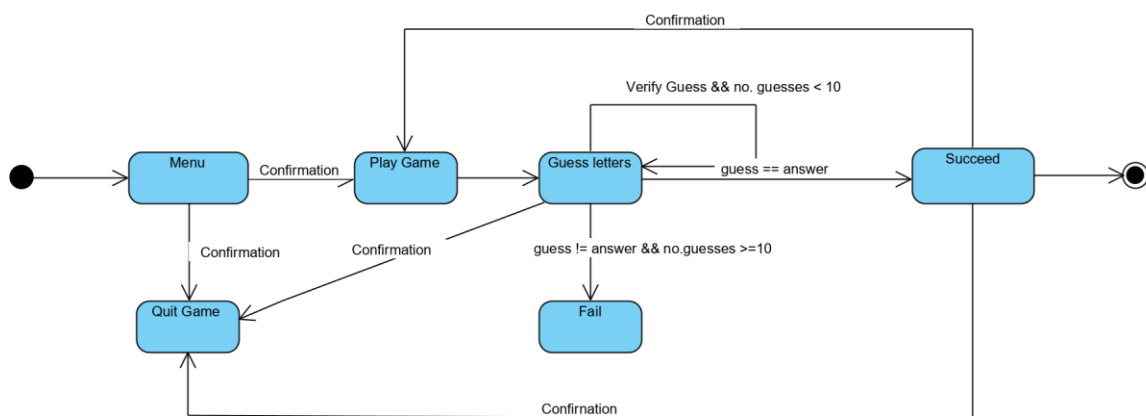
Use Case Diagram



Class Diagram



State Machine Diagram



Time Log

Task	Estimated Time	Actual Time	Time Difference
Create a Project Plan	1.5h	2.5h	1h
Update the Project Plan	1h	1h	0
Create a Time Log Table	5min	20min	15min
Update the Time Log table	5min	5min	0
Create a Use Cases Diagram	20min	30min	10min
Update the Use Cases Diagram	5min	5min	0
Create the fully dressed Use Cases	1h	2h	1h
Update the fully dressed Use Cases	30min	30min	0
Create a State Machine Diagram	30min	1.5h	1h
Update the State Machine Diagram	10min	10min	0
Create a Class Diagram	20min	50min	30min
Update a Class Diagram	5min	5min	0
Read materials	2h	3h	1h
Update materials	4h	5h	1h
Implement the code for the Hangman Game	2h	5h	3h
Update the code	4h	6h	2h